

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Status of Claims:

No claims are currently being cancelled.

Claims 1, 2 and 8 are currently being amended.

Claims 12-15 are currently being added.

This amendment and reply amends and adds claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending and adding the claims as set forth above, claims 1-15 are now pending in this application.

Claim Rejections – Prior Art:

In the Office Action, claims 1, 4, 5 and 7-10 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,797,188 to Shen et al.; claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shen et al. in view of U.S. Patent Publication No. 2002/0050486 to Ishii et al.; claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shen et al. in view of U.S. Patent No. 2001/0035130 to Ishii et al.; claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shen et al. in view of U.S. Patent Publication No. 2001/0010228 to Au et al.; and claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shen et al. in view of U.S. Patent Publication No. 2002/0047203 to Akahori et al. These rejections are traversed with respect to the presently pending claims under rejection, for at least the reasons given below.

Presently pending independent claim 1 is directed to a method of cleaning a substrate processing apparatus in which a microwave transmissive window is provided so as to face a processing substrate held on a holding stage. Furthermore, in addition to a plasma gas supply portion for supplying a plasma gas, the substrate processing apparatus is provided with a process gas supply portion which is interposed between the processing substrate and the microwave transmissive window.

In the substrate processing apparatus of the type described in the specification, it is difficult to clean deposits deposited at portions facing a space under a process gas supply portion. This is because microwave transmissions are interrupted by the process gas supply portion, and therefore cannot reach the space in question to be cleaned.

However, with a method according to presently pending independent claim 1, it is possible to easily remove the above-mentioned deposits through the process gas supply portion being interposed between a processing substrate and a microwave transmissive window. The discussion of this is provided on page 11, lines 6-13 of the specification.

In item 2 of the Office Action, it asserts that claims 1, 4-5, and 7-10 are anticipated by Shen et al. However, the apparatus disclosed in Shen is not provided with a process gas supply portion that is interposed between a processing substrate and a microwave transmissive window, as now explicitly recited in claim 1.

In more detail, Figure 1 of Shen shows an apparatus that is provided with gas outlets 38. However, the gas outlets 38 are located around the periphery of the substrate 24 and, therefore, are not interposed between the substrate and a microwave transmissive window. Accordingly, the gas outlets do not correspond to the process gas supply portion as recited in presently pending independent claim 1.

As such, Shen does not disclose or suggest cleaning a substrate processing apparatus in which a process gas supply portion is interposed between a processing substrate and a microwave transmissive window.

Since none of the other cited art of record rectifies the above-mentioned deficiencies of Shen, presently pending independent claim 1 is patentable over the cited art of record.

New Claims:

New claims 12-15 have been added to recite features of the present invention that are described, for example, on pages 11 and 12 of the specification, whereby such features are believed to provide a separate basis of patentability for these claims, beyond the reasons given above for claim 1.

Conclusion:

Since all of the issues raised in the Office Action have been addressed in this Amendment and Reply, Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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